Commercialization of Research

3217. SHRI JANARDHANA POOJARY: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that Government are considering to allow commercialization of technological and scientific research being carried by Indian science institutes and universities;

(b) if so, the details in this regard;

(c) whether it is a fact that there is dearth of scientists and other professional in major research institutes in the country;

(d) if so, the details in this regard; and

(e) the steps proposed to be taken to attract and retain the required talent?

THE MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) and (b) Several schemes have been put in place by Government to allow commercialization of technological and scientific research being carried by Indian science institutes and universities by providing infrastructural and operational support through various schemes and incentives. With increased emphasis on public-private partnership in technology development, the Government, through schemes of Technology Development Board (TDB), New Millennium Indian Technology Leadership Initiative (NMITLI) and Drug & Development Promotion Board (DDPB), provides incentives to commercialize inventions, as these schemes take adequate care to ensure that inventions from scientific institutions and universities become an important component of the schemes. Ministry of Science and Technology and Department of Ocean Development allow institutions and universities implementing projects awarded by them to own intellectual property rights emanating from such projects and retain benefits and earnings accrued from patents. Institutions may determine the share of inventors and other persons from actual earnings. However, such share shall be limited to one-third of the actual earnings. Similar schemes are available to the scientists from CSIR and ICAR.

The Government has set up specialized cells/centers/untis in its different departments and agencies which provide technical, financial and legal help to scientists for protecting their inventive work in India and

other countries. Intellectual property rights, so generated, are also maintained by these cells/centers/units. The ownership of such patents resides with the concerned institutions and the scientists' names appear as inventors in the patent document. Prominent among the Government Departments/agencies are: Department of Science and Technology, Department of Biotechnology, Ministry of Telecommunications and Information Technology, Department of Atomic Energy, Defence Research and Development Organization (DRDO), Council of Scientific & Industrial Research (CSIR), ISRO, Indian Council of Medical Research (ICMR), Indian Council of Agricultural Research (ICAR), Indian Council of Forest Research (ICFR). In addition, many awards and fellowships have been instituted for recognizing meritorious scientists and giving them incentives to take on R&D projects. There are tax incentives available for commercializing indigenously-developed technology.

(c) to (e) Views have been expressed at various fora, indicating that the country is likely to face shortage of scientists in basic sciences, as a result of the declining interest in science amongst the young students, lack of sufficient incentives, etc. Taking note of these concerns, the Government, in order to attract students and researchers and to improve the quality of research, has taken various measures by introducing a set of new initiatives. These include programmes like "Shyama Prasad Mukherjee Fellowships"—targeted at post-graduate talented students, "CSIR Diamond Jubilee Technology Awards"—for innovators for developing technology of the highest benchmarks of competitiveness and excellence and for inventions of school students, "Women Scientists Scheme"—instituted to provdie opportunities to women scientists, "Swarnajayanti Fellowship"—for outstanding young scientists, Post-doctoral Fellowship in Biotechnology, Bioscience Awards for career development. "Ramanna Fellowship"—aimed to support performing scientists, Fund for improvement of infrastructure for S&T in Universities and Higher Educational Institutions, etc. More recently, Government has also announced two National Research Fellowship, namely, "Ramanujam Fellowships"—to attract brilliant scientists from all over the world and "JC Bose Fellowship"—to recognize active scientists who have proven outstanding track record. All these initiatives are aimed at providing encouragement to scientists. The Government has also instituted several S&T programmes with other countries to build international academic and research linkages in pure sciences.